INCH-POUND

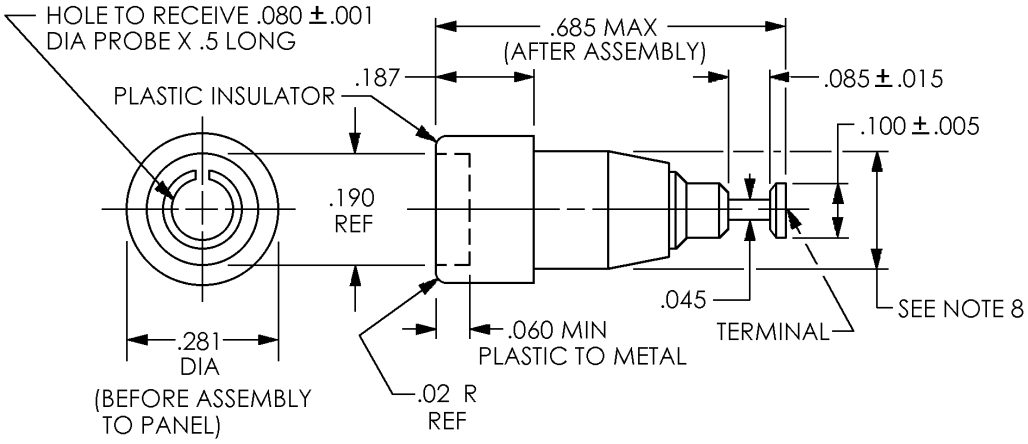
MIL-DTL-39024/14B
3 February 2003
SUPERSEDING
MIL-C-39024/14A
9 June 1978

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, TEST POINT TYPE, PANEL TYPE; SINGLE TEST POINT SUBMINIATURE (PUSH-IN), LOW VOLTAGE, .080

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-39024.



Inches	mm	Inches	mm
.001	0.03	.085	2.16
.005	0.13	.100	2.54
.015	0.38	.187	4.75
.02	0.5	.190	4.83
.045	1.14	.218	5.54
.060	1.52	.281	7.14
.080	2.03	.500	12.70
		.685	17.40

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only, and are based on 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerances are ± .010 (0.25 mm).
4. Recommended mounting hole diameter .218 ± .001 (5.54 ± 0.03 mm).
5. Range of acceptable panel thickness: .031 - .093 (0.79 – 2.36 mm).
6. Parts supplied unassembled.
7. All undimensioned pictorial configurations are for reference purpose only.
8. When unassembled, this dimension shall be .218 ± .005 (5.54 ± 0.13 mm). When the terminal assembly and insulator are assembled, this dimension shall be .220 (5.59 mm) minimum.

FIGURE 1. Configuration and dimensions.

TABLE I. Design and identification data.

Dash number	Insulation		
	Material	Color	Number in accordance with FED-STD-595
-01	L-P-410 or ASTM D4066	White	17875
-02		Red	11105
-03		Black	17038
-04		Brown	10075
-05		Green	14110
-06		Orange	12246
-07		Blue	15123
-08		Yellow	13655
-09		Gray	16187
-10		Purple	27144
-11		Natural	----
-12	ASTM D1710	White	17875
-13		Red	11105
-14		Black	17038
-15		Brown	10075
-16		Green	14110
-17		Orange	12246
-18		Blue	15123
-19		Yellow	13655
-20		Gray	16187
-21		Purple	27144
-22		Natural	----

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Insulation: Material shall be as shown in table I.

Socket contact and terminals: Material shall be as specified in MIL-DTL-39024.

Flammability: Dielectric materials shall be self-extinguishing in accordance with ASTM D635.

Terminals: Shall be capable of being wired with two no. 20 AWG wires. Configuration shall be shown on figure 1.

Test probe: 0.080 ± 0.001 inch in diameter and ½ -inch (min) length. Test probe shall be engaged for a minimum of ½ inch.

Contact current rating: 5 amperes (max).

Contact resistance: A test probe in accordance with MIL-DTL-39024 shall be fully inserted in the connector. With a current of 5 amperes, potential drop shall be measured between the connector terminal and the extreme end of the solder cup on the test probe. Measured values shall be within the limits specified in table II.

TABLE II. Potential drop (max) with 5 amperes of current.

Test	Before test	After test
Durability	6 mV	8 mV
Vibration	8 mV	10 mV
Salt spray (corrosion)	10 mV	15 mV

Dielectric withstanding voltage (at sea level):

Test voltage: 3,000 volts rms, 60 hertz, shall be applied to the insulting material for period of 15 seconds.

Insertion and withdrawal forces:

Insertion force: 5.0 pounds (max).
Withdrawal force: 0.4 pound (min).

Identification marking:

Part or Identifying Number (PIN): M39024/14-(dash number from table I).

Operating conditions:

Operating voltage: 2,000 volts rms, 60 hertz at sea level; 350 volts rms, 60 hertz at 80,000 feet.

The thickness of the panel on which these connectors may be used ranges from 0.031 to 0.093 inch; the diameter of the mounting hole is 0.218 $\pm$ 0.001 inch.

Note: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-4438-006)

Review activities:
Army - AR, CR4, MI
Navy - AS, CG, MC, OS
Air Force - 19